NICE National Institute for Health and Care Excellence

NICE quality standard

Hip fracture in adults

Quality standard

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This standard is based on CG124.

This standard should be read in conjunction with QS3, QS15, QS86 and QS63.

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NICE has developed guidance and a quality standard on patient experience in adult NHS services (see the NICE pathway on patient experience in adult NHS services), which should be considered alongside these quality statements.

Other quality standards that should be considered when commissioning or providing services for people with hip fracture include:

- Falls in older people (2015) NICE quality standard 86.
- Delirium in adults (2014) NICE quality standard 63.

NICE is also developing the following relevant quality standard:

- Osteoporosis. Publication expected April 2017.

A full list of NICE quality standards is available from the quality standards topic library.

Quality statement 1: Multidisciplinary management

Quality statement

Adults with hip fracture are cared for within a Hip Fracture Programme at every stage of the care pathway. **[2012, updated 2016]**

Rationale

People with hip fracture, including those cared for in the community, often have comorbidities and complex care needs. The multidisciplinary approach of a Hip Fracture Programme, with regular assessment and continuous rehabilitation, has been found to better meet those needs, and lead to improved functional outcomes and reduced mortality.

Quality measures

Structure

Evidence of local arrangements to ensure that people with hip fracture are cared for within a Hip Fracture Programme at every stage of the care pathway.

Data source: Local data collection.

Process

a) Proportion of presentations of hip fracture in which the person receives an orthogeriatric assessment prior to surgery.

Numerator – the number in the denominator in which the person receives an orthogeriatric assessment prior to surgery.

Denominator – the number of presentations of hip fracture.

Data source: Local data collection. The National Hip Fracture Database records access to orthogeriatric assessment.

b) Proportion of presentations of hip fracture in which the person has their goals for multidisciplinary rehabilitation identified.

Numerator – the number in the denominator in which the person has their goals for multidisciplinary rehabilitation identified.

Denominator – the number of people having surgery for hip fracture.

Data source: Local data collection.

Outcome

a) Mortality for people with hip fracture at discharge.

Data source:Local data collection.

b) Functional outcome at 1 year.

Data source:Local data collection.

What the quality statement means for different audiences

Service providers (such as hospitals) have systems in place to ensure that people with hip fracture are cared for within a Hip Fracture Programme at every stage of the care pathway.

Commissioners (such as clinical commissioning groups) ensure that they commission hip fracture services that provide care within a Hip Fracture Programme at every stage of the care pathway.

People with hip fracture are looked after within a programme of care, called a Hip Fracture Programme. This involves a team of healthcare professionals with different skills working together to provide care. Hip Fracture Programmes provide care at every stage, in hospital and at home, which includes regular assessment, and coordination of care and rehabilitation.

Source guidance

Hip fracture: management (2011) NICE guideline CG124, recommendation 1.8.1 (key priority for implementation)

Definitions of terms used in this quality statement

Hip Fracture Programme

A coordinated multidisciplinary approach ensuring continuity of care and responsibility across the clinical pathway. It covers care in all settings, including ambulances, A&E departments, radiology, operating theatres, wards and in the community and primary care, and at all stages, including diagnosis, treatment, recovery, discharge planning, rehabilitation, long-term after care and secondary prevention.

It involves formal 'orthogeriatric' care, with the geriatric medical team contributing to joint preoperative patient assessment, and increasingly taking the lead in postoperative medical care, multidisciplinary rehabilitation and discharge planning.

It includes all of the following:

- orthogeriatric assessment
- rapid optimisation of fitness for surgery
- early identification of individual goals for multidisciplinary rehabilitation to recover mobility and independence, and to facilitate return to pre-fracture residence and long-term wellbeing
- continued, coordinated, orthogeriatric and multidisciplinary review
- liaison or integration with related services, particularly mental health, falls prevention, bone health, primary care and social services
- clinical and service governance responsibility for all stages of the pathway of care and rehabilitation, including those delivered in the community.

[Adapted from NICE's guideline on hip fracture, recommendation 1.8.1 and expert consensus]

Quality statement 2: Timing and expertise for surgery

Quality statement

Adults with hip fracture have surgery on a planned trauma list on the day of, or the day after, admission. **[2012, updated 2016]**

Rationale

People with hip fracture can experience pain and anxiety while waiting for an operation. Delays in surgery are associated with negative outcomes for mortality and return to mobility. Therefore, it is important to avoid any unnecessary delays for people who are assessed as fit for surgery. A planned trauma list includes specific healthcare professionals with the expertise required for hip surgery. Senior staff supervision can help to reduce the risk of complications during the surgery.

Quality measures

Structure

a) Evidence of local arrangements to ensure that people with hip fracture have surgery on a planned trauma list.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that people with hip fracture have surgery on the day of, or the day after, admission.

Data source: Local data collection.

Process

a) Proportion of operations for hip fracture that are performed on a planned trauma list.

Numerator – the number in the denominator that are performed on a planned trauma list.

Denominator – the number of operations for hip fracture.

Data source: Local data collection. The National Hip Fracture Database records the time of the operation in relation to the admission.

b) Proportion of operations for hip fracture that are performed on the day of, or the day after, admission.

Numerator – the number in the denominator that are performed on the day of, or the day after, admission.

Denominator – the number of operations for hip fracture.

Data source: Local data collection. The NHS Digital Compendium of Clinical and Health Indicators records emergency hospital admissions and timely surgery: fractured proximal femur. The National Hip Fracture Database records the time of the operation in relation to the admission.

Outcome

a) Postoperative complications for people with hip fracture.

Data source:Local data collection.

b) Length of hospital stay for people with hip fracture.

Data source:Local data collection.

c) Mortality for people having hip fracture surgery.

Data source:Local data collection.

What the quality statement means for different audiences

Service providers (hospitals) ensure that systems are in place for people with hip fracture to have surgery on a planned trauma list on the day of, or the day after, admission.

Healthcare professionals (such as specialists, orthogeriatricians and anaesthetists) perform hip fracture surgery on a planned trauma list on the day of, or the day after, admission.

Commissioners (such as clinical commissioning groups) ensure that they commission services that have sufficient capacity for people with hip fracture to have surgery on a planned trauma list on the day of, or the day after, admission.

People with hip fracture have an operation carried out by a team of senior specialists on the day they are admitted to hospital or the next day.

Source guidance

Hip fracture: management (2011) NICE guideline CG124, recommendations 1.2.1 (key priority for implementation) and 1.5.1

Definitions of terms used in this quality statement

Planned trauma list

A planned trauma list is one with a rostered senior anaesthetist, senior surgeon and dedicated theatre time.

[NICE's guideline on hip fracture, full guideline]

Quality statement 3: Intracapsular fracture

Quality statement

Adults with displaced intracapsular hip fracture receive cemented hemiarthroplasty or, if they are assessed as clinically eligible, a total hip replacement. **[2012, updated 2016]**

Rationale

Cemented arthroplasty is the preferred option for adults with displaced intracapsular fracture because it can result in less pain and reduced need for surgical revision than other options. It is usually carried out by hemiarthroplasty, but may also be carried out by total hip replacement in people who are clinically eligible for the procedure. Total hip replacement may prevent the need for further surgery in the future. This saves the discomfort and risks associated with additional surgery as well as the cost for the health service.

Quality measures

Structure

Evidence of local arrangements to ensure that people with displaced intracapsular fracture receive cemented hemiarthroplasty or, if they are assessed as clinically eligible, a total hip replacement.

Data source: Local data collection.

Process

a) Proportion of presentations of displaced intracapsular fracture for which the person receives cemented hemiarthroplasty if they are not eligible for total hip replacement.

Numerator – the number in the denominator for which the person receives cemented hemiarthroplasty.

Denominator – the number of presentations of displaced intracapsular fracture in which the person is not eligible for total hip replacement.

Data source: Local data collection. The National Hip Fracture Database records procedure type for intracapsular displaced fracture and cementing of arthroplasties.

b) Proportion of presentations of displaced intracapsular fracture in which the person receives total hip replacement if they are assessed as clinically eligible.

Numerator – the number in the denominator for which the person receives total hip replacement.

Denominator – the number of presentations of displaced intracapsular fracture in which the person is assessed as clinically eligible for total hip replacement.

Data source: Local data collection. The National Hip Fracture Database records procedure type for intracapsular displaced fracture and cementing of arthroplasties.

Outcome

a) Number of people with hip fracture receiving reoperation of the hip.

Data source:Local data collection.

b) Mobility for people with cemented hemiarthroplasty at 12 months.

Data source:Local data collection.

c) Mobility for people with total hip replacement at 12 months.

Data source:Local data collection.

What the quality statement means for different audiences

Service providers (hospitals) ensure that systems are in place for people with displaced intracapsular fracture to receive cemented hemiarthroplasty or, if they are assessed as clinically eligible, a total hip replacement.

Healthcare professionals (orthopaedic surgeons) ensure that people with displaced intracapsular fracture receive cemented hemiarthroplasty or, if they are assessed as clinically eligible, a total hip replacement.

Commissioners (such as clinical commissioning groups) ensure that they commission services in which people with displaced intracapsular fracture receive cemented hemiarthroplasty or, if they are assessed as clinically eligible, a total hip replacement.

People with a fracture inside the socket of their hip joint and where the bones have moved out of position (called a displaced intracapsular fracture) have an operation to replace the broken part of the hip joint (the 'ball' of the joint) with an artificial part. Some people have only the ball of the joint replaced (called hemiarthroplasty). Others are offered an operation to replace both parts of the hip joint (the ball and socket) with artificial parts (called a total hip replacement). A total hip replacement is a bigger operation and only people who were fit and active before the fracture, and who are assessed as well enough to have the operation, are offered this.

Source guidance

Hip fracture: management (2011) NICE guideline CG124, recommendations 1.6.2, 1.6.3 (key priorities for implementation) and 1.6.5

Definitions of terms used in this quality statement

Intracapsular fractures

Fractures above the insertion of the capsular attachment of the hip joint are called intracapsular.

[NICE's guideline on hip fracture, full guideline]

Clinically eligible

Total hip replacements should be offered to patients with a displaced intracapsular fracture who:

- were able to walk independently out of doors with no more than the use of a stick **and**
- are not cognitively impaired **and**
- are medically fit for anaesthesia and the procedure.

[NICE's guideline on hip fracture, recommendation 1.6.3]

Quality statement 4: Trochanteric fracture

Quality statement

Adults with trochanteric fractures above and including the lesser trochanter receive extramedullary implants. **[2012, updated 2016]**

Rationale

Extramedullary implants, such as sliding hip screws, have similar clinical outcomes to intramedullary devices. However, some studies have shown that intramedullary implants have a higher reoperation rate because of periprosthetic fracture. In addition, extramedullary implants are less expensive than intramedullary implants. Therefore, extramedullary implants are recommended in preference to intramedullary nails for the treatment of trochanteric fractures.

Quality measures

Structure

Evidence of local arrangements to ensure that people with trochanteric fractures above and including the lesser trochanter receive extramedullary implants.

Data source: Local data collection.

Process

Proportion of presentations of trochanteric fractures above and including the lesser trochanter in which the person receives extramedullary implants.

Numerator – the number in the denominator in which the person receives extramedullary implants.

Denominator – the number of presentations of trochanteric fractures above and including the lesser trochanter.

Data source: Local data collection. The National Hip Fracture Database records procedure type for trochanteric fracture.

Outcome

Reoperation rates for people with trochanteric fractures.

*Data source:*Local data collection.

What the quality statement means for different audiences

Service providers (hospitals) ensure that systems are in place for people with trochanteric fractures above and including the lesser trochanter to receive extramedullary implants in preference to intramedullary nails.

Healthcare professionals (orthopaedic surgeons) ensure that people with trochanteric fractures above and including the lesser trochanter receive extramedullary implants in preference to intramedullary nails.

Commissioners (such as clinical commissioning groups) ensure that they commission services where people with trochanteric fractures above and including the lesser trochanter receive extramedullary implants in preference to intramedullary nails.

People with a fracture outside the socket of their hip joint and near the top of the thigh bone (called a trochanteric fracture) have an operation to reposition the broken bone and hold it in place while it heals. This is done using one or more special screws inserted into the bone and attached to a metal plate (called an extramedullary implant).

Source guidance

Hip fracture: management (2011) NICE guideline CG124, recommendation 1.6.7 (key priorities for implementation)

Definitions of terms used in this quality statement

Trochanteric fractures

Fractures that occur outside or distal to the hip joint capsule, which can be two-part fractures (stable) or multi-fragmentary (unstable).

[NICE's guideline on hip fracture, full guideline]

Extramedullary implants

A screw that is attached to a plate on the outside of the femoral head and neck.

[NICE's guideline on hip fracture, full guideline]

Quality statement 5: Subtrochanteric fracture

Quality statement

Adults with subtrochanteric fracture are treated with an intramedullary nail. **[new 2016]**

Rationale

Using an intramedullary device can provide mechanical protection to a potentially diseased bone. Intramedullary fixation is the treatment of choice for subtrochanteric fractures because it allows splinting of the whole of the femoral shaft. Although intramedullary nails are more expensive than extramedullary implants, they lead to fewer patients with non-union of fracture needing reoperation.

Quality measures

Structure

Evidence of local arrangements to ensure that people with subtrochanteric fracture are treated with an intramedullary nail.

Data source: Local data collection.

Process

Proportion of presentations of subtrochanteric fractures treated with an intramedullary nail.

Numerator – the number in the denominator that are treated with an intramedullary nail.

Denominator – the number of presentations of subtrochanteric fractures.

Data source: Local data collection.

Outcome

a) Number of people with non-union of fracture.

Data source:Local data collection.

What the quality statement means for different audiences

Service providers (hospitals) ensure that systems are in place for people with subtrochanteric fractures to be treated with an intramedullary nail.

Healthcare professionals (orthopaedic surgeons) perform surgery on people with subtrochanteric fractures using an intramedullary nail.

Commissioners (such as clinical commissioning groups) ensure that they commission services where people with subtrochanteric fractures are treated with an intramedullary nail.

People with a fracture outside the socket of their hip joint and a small way down the thigh bone (called a subtrochanteric fracture) have an operation to reposition the broken bone and hold it in place while it heals. This is done using a metal rod, called an intramedullary nail, which is inserted into the bone.

Source guidance

Hip fracture: management (2011) NICE guideline CG124, recommendation 1.6.8

Definitions of terms used in this quality statement

Subtrochanteric fracture

The fracture is predominantly in the 5 cm of bone immediately distal to the lesser trochanter.

[NICE's guideline on hip fracture, full guideline]

Intramedullary nail

A metal rod, which is inserted down the middle of the femoral shaft.

[NICE's guideline on hip fracture, full guideline]

Quality statement 6: Rehabilitation after surgery

Quality statement

Adults with hip fracture start rehabilitation at least once a day, no later than the day after surgery. **[2012, updated 2016]**

Rationale

Early restoration of mobility after hip fracture surgery can be beneficial for the person because it can reduce the length of hospital stay and avoid the complications of prolonged bed confinement. Rehabilitation at least once a day has potential benefits of improved mobility, increased independence, and reduced need for institutional care. A physiotherapist assessment is needed before the rehabilitation starts. People should be offered support with rehabilitation every day while in hospital, which can be given by members of the multidisciplinary team when the physiotherapist is not present. This support should continue after discharge from hospital.

Quality measures

Structure

Evidence of local arrangements to ensure that people with hip fracture start rehabilitation at least once a day, no later than the day after surgery.

Data source: Local data collection.

Process

a) Proportion of hip fracture operations after which the person starts rehabilitation no later than the day after surgery.

Numerator – the number in the denominator after which the person starts rehabilitation no later than the day after surgery.

Denominator – the number of hip fracture operations.

Data source: Local data collection. The National Hip Fracture Database records if the patient was mobilised on the day after surgery.

b) Proportion of hip fracture operations after which the person has rehabilitation at least once a day.

Numerator – the number in the denominator after which the person has rehabilitation at least once a day.

Denominator – the number of hip fracture operations.

Data source: Local data collection.

Outcome

a) Length of hospital stay for people with hip fracture.

Data source:Local data collection.

b) Return to the pre-hip fracture place of residence.

Data source:Local data collection.

c) Return to the pre-hip fracture level of mobility.

Data source:Local data collection. The National Hip Fracture Database records the routine follow-up of hip fracture patients.

What the quality statement means for different audiences

Service providers (such as hospitals) ensure that systems are in place for people with hip fracture to start rehabilitation at least once a day, no later than the day after surgery.

Healthcare professionals (such as physiotherapists and nurses) offer rehabilitation at least once a day to people with hip fracture, starting no later than the day after surgery.

Commissioners (such as clinical commissioning groups) ensure that they commission services in which people with hip fracture start rehabilitation at least once a day, no later than the day after surgery.

People who have had an operation for hip fracture are offered rehabilitation at least once a day to help them recover. Rehabilitation should be started by the day after their operation (unless there is a medical or surgical reason not to). Rehabilitation after a hip fracture operation includes support with sitting and standing and keeping an upright posture to improve movement and strength, and help with their recovery.

Source guidance

Hip fracture: management (2011) NICE guideline CG124, recommendations 1.7.1 and 1.7.2

Definitions of terms used in this quality statement

Rehabilitation

Rehabilitation is the process of re-establishing the ability to move between postures (for example, from sitting to standing), maintain an upright posture and to ambulate with increasing levels of complexity (speed, changes of direction, dual and multi-tasking).

[Adapted from NICE's guideline on hip fracture, full guideline and expert input]

Update information

In 2016 this quality standard was updated and statements prioritised in 2012 were replaced.

Statements are marked as:

- **[new 2016]** if the statement covers a new area for quality improvement
- **[2012, updated 2016]** if the statement covers an area for quality improvement included in the 2012 quality standard and has been updated.

The areas covered by statements numbered 1, 2, 5, 6, 7, 8 and 9 in the 2012 version have been updated and the updated statements are marked as **[2012, updated 2016]**.

The statements below from the 2012 version (numbered 3, 4, 10, 11 and 12) are no longer considered national priorities for improvement but may still be useful at a local level:

- People with hip fracture have their cognitive status assessed, measured and recorded from admission.
- People with hip fracture receive prompt and effective pain management, in a manner that takes into account the hierarchy of pain management drugs, throughout their hospital stay.
- People with hip fracture are offered early supported discharge (if they are eligible), led by the Hip Fracture Programme team.
- People with hip fracture are offered a multifactorial risk assessment to identify and address future falls risk, and are offered individualised intervention if appropriate.
- People with hip fracture are offered a bone health assessment to identify future fracture risk and offered pharmacological intervention as needed before discharge from hospital.

A pdf version of the 2012 quality standard is available here.

About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Information about how NICE quality standards are developed is available from developing NICE quality standards on the website.

See quality standard advisory committees on the website for details of standing committee 4 members who advised on this quality standard. Information about the topic experts invited to join the standing members is available on the quality standard's webpage.

This quality standard has been incorporated into the NICE pathway on hip fracture.

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

Improving outcomes

The quality standard is expected to contribute to improvements in the following outcomes:

- length of hospital stay
- readmission to hospital
- reoperation rates
- mortality rates.

It is also expected to support delivery of the Department of Health's outcome frameworks:

- NHS outcomes framework 2016–17

- Adult social care outcomes framework 2015–16
- Public health outcomes framework for England 2016–19.

Resource impact

NICE quality standards should be achievable by local services. The potential resource impact is considered by the quality standards advisory committee, drawing on resource impact work for the source guidance. Organisations are encouraged to use the costing report and template for the NICE guideline on hip fracture to help estimate local costs.

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and equality assessments are available.

Good communication between health, public health and social care practitioners and people with hip fracture is essential. Treatment, care and support, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People with hip fracture in hospital should have access to an interpreter or advocate if needed.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have

agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- British Orthopaedic Association
- Chartered Society of Physiotherapy
- Royal College of General Practitioners
- Royal College of Physicians